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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,327

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Shinichiro Saito

NAKAI-008US

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06/17/2011

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EXAMINER

MURPHY, KEVIN

ART UNIT

PAPER NUMBER

3753

MAIL DATE

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06/17/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/579,327	SAITO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	KEVIN MURPHY	3753	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/28/2007</u> .                                               | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 1-8 remain pending for consideration following applicant's election and amendment filed 6/01/2011.

#### ***Election/Restrictions***

1. **Claim 3** is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species of a combustion gas extraction probe, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/01/2011. Therefore, claims 1-8 remain pending with claim 3 having been withdrawn from consideration.

#### ***Claim Objections***

2. **Claims 4 and 5** are objected to because of the following informalities: "wherein plurality of said low-temperature gas discharge holes" should be "wherein a plurality of said low-temperature gas discharge holes". Appropriate correction is required.

3. **Claims 7 and 8** are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. **Claim 6** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Regarding claim 6, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1, 2, 4 and 5** are rejected under 35 U.S.C. 102(b) as being anticipated by Murata et al. (US Patent 6017213).

9. Regarding Claim 1, Murata discloses (Figures 4-6 especially) a combustion gas extraction probe **5** for extracting a high-temperature combustion **GT** gas while cooling said high-temperature combustion gas with a low-temperature gas **CA** (col. 3, line 62—col. 4, line 7) characterized by making said low-temperature gas flow in a direction that is substantially perpendicular to a sucking direction of the high-temperature combustion gas (via inlets **28**) and is toward a center of flow of said high-temperature combustion gas for mixed cooling (see the plurality of inlets **28** providing the cooling air to enter in a direction substantially perpendicular to the sucking direction of the high temperature gas).

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10. Regarding Claim 2, Murata further discloses an inner tube **10** in which the high-temperature combustion gas **GT** flows; an outer tube **12** surrounding said inner tube; a low-temperature gas discharge hole **28** provided in said inner tube **10**; and a low-temperature gas supply means (supply of cooling air **CA**) for supplying the low-temperature gas between the inner tube **10** and the outer tube **12**, and discharging the low-temperature gas from the discharge hole **28** into the direction that is substantially perpendicular to the sucking direction of the high-temperature combustion gas and is toward the center of the flow of said high temperature combustion gas (as best shown in Figure 6).

11. Regarding Claim 4, Murata further discloses a plurality of said low-temperature gas discharge holes **28** are provided, and individual discharge holes are rotationally symmetrically arranged at substantially the same positions from a head of the probe in the high-temperature combustion gas sucking direction (see holes **28** provided in circumferentially opposite positions located substantially the same distance from the head as best shown in Figure 6).

12. Regarding Claim 5, Murata further discloses a plurality of low-temperature gas discharge holes **28** are arranged in stages in the high-temperature combustion gas sucking direction (i.e. the holes **28** are provided along the length of the inner tube **10** in the same manner as achieved by applicant).

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. **Claim 6** as understood is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Murata et al. (US Patent 6017213).

16. Regarding Claim 6, Murata is seen as disclosing the flow speeds of the low-temperature gas and the high-temperature combustion gas are capable of being not less than 40 m/s and not more than 100 m/s (this claim does not further recite any structure of the claimed device, and the device of Murata is seen as capable of having the recited flow speeds of the high and low temperature gases flow through the device). Alternatively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the gases such that they flow at any desired speeds, including speeds of not less than 40 m/s and not more than 100 m/s, for the purpose of ensuring adequate mixing of the gases.

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***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN MURPHY whose telephone number is (571)270-5243. The examiner can normally be reached on Monday-Friday 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hepperle can be reached on 571-272-4913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHEN M HEPERLE/  
Supervisory Patent Examiner, Art  
Unit 3753

/KEVIN MURPHY/

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Examiner, Art Unit 3753

6/13/2011